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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Response to Arguments

1. Applicant's arguments filed June 30, 2009 have been fully considered but they are not persuasive for the following reasons:

- Applicant's first major argument states that Jacobsen is not treating with a colloid. This argument however is unpersuasive. While Jacobsen never calls the coating a colloid, it is indeed a colloid (a suspension of particles in a carrier medium). The "coating" is created in the same manner as Applicant describes the metal colloid to be prepared in paragraph [0020] by reduction of a metal salt solution of silver nitrate with sodium nitrate (a reducing agent) (col. 10 lines 44-51). Applicant describes the metal colloid to be prepared by reduction of metal salt solutions [0020], which is exactly how the silver coating is prepared in Jacobsen. Even if the coating comprises "a substantially total surface coverage", as Applicant describes, the coating is colloidal. Applicant further argues that Jacobson is precipitating silver hydroxide onto the barium sulfate and then reducing the silver hydroxide to silver rather than adsorbing silver onto the barium sulfate. This argument is not persuasive. Jacobsen does indeed convert the silver nitrate to silver oxide (silver hydroxide is not produced in appreciable amounts because of the favorable kinetics for the following reaction: $2\ AgOH \rightarrow Ag_2O + H_2O$ (pK=2.875)) before reducing the Ag+ -> Ag but by keeping the pH between 8.5 and 9 (col. 10 line 48) Jacobsen prevents the precipitation of Ag_2O (which is soluble in basic solution). The silver ion solution is then reduced to Ag (forming a colloid) which is precipitated onto the surface of the barium sulfate in an equilibrium process (col. 10 lines 49-53).

Adsorption is defined as the accumulation of atoms or molecules on the surface of a material. This process creates a film of the adsorbate (the molecules or atoms being accumulated) on the adsorbent's surface. It is different from absorption, in which a substance diffuses into a liquid or solid to form a solution. Thus precipitation of Ag onto the surface of the barium sulfate is adsorbing the silver onto the surface. Furthermore Jacobsen describes the precipitation of silver not silver hydroxide or silver oxide (col. 5 lines 34-38).

- Applicant's second major argument is that Jacobsen never adds a readily (or sparingly) soluble salt to the intermediate product. This argument is unpersuasive for two reasons: 1) Jacobsen does add Copper Nitrate (readily soluble antimicrobial metal salt) to the intermediate product barium sulfate (col. 10 lines 53-54), and 2) the limitation intermediate product was not part of the claim until the current amendment. In reading the claims with the broadest reasonable interpretation, the intermediate product claimed by applicant is barium sulfate coated with metal colloid which itself is a constituent of the antimicrobial plastic intermediate. Therefore Jacobsen does add a readily soluble salt to said intermediate, whether or not it is present in the final product.
- Applicant's final argument is that neither Jacobsen nor Terry teach the treatment of the intermediate with a colloidal metal. This argument is unpersuasive because, as described above, Jacobsen does teach treatment of an intermediate with a colloidal metal. Additionally, as described above, Terry teaches addition of antimicrobial metal salts and a person having ordinary skill in the art at the time of invention would

have found it obvious to combine the teachings of Jacobson and Terry to create an article that had both surface antibacterial properties (Jacobson), due to the metal colloid, and a radius of antibacterial properties (Terry col. 8 line 23), due to the release of ions from the metal salt colloid.

Conclusion

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT J. GRUN whose telephone number is (571)270-5521. The examiner can normally be reached on Mon-Thur 10-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip C. Tucker can be reached on (571)272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

3. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT J GRUN/
Examiner, Art Unit 1791

/Philip C Tucker/
Supervisory Patent Examiner, Art Unit 1791